

## **REMARKS**

At present, Applicants' claims 1-4 and 9-20 stand rejected under 35 USC § 102(e) based upon the published patent application of Moore et al. (U.S. Patent Publication US 2004/0249904 A1, having a publication date of December 9, 2004 and bearing a filing date of April 16, 2003, hereinafter referred to simply as Moore). Claims 5-8 also stand rejected under 35 USC § 103 based upon the aforementioned Moore application in further review of the published patent application of Dugan et al. (U.S. Patent Publication US 2006/0165223 A1, having a publication date of July 27, 2006 and bearing a filing date of February 15, 2006, hereinafter referred to simply as Dugan). Applicants respectfully, but most strenuously, traverse all of the rejections for the reasons set forth below.

### **Preliminary Matters**

Based upon all of the information available to the present applicants, it is their contention that the cited patent application to Dugan is not even eligible to be cited as prior art since it is indeed **not prior**. The information on the website maintained by the United States Patent and Trademark Office with respect to this document indicates a filing date of February 15, 2006. The filing date of the present application which is its priority date is December 8, 2003, which is more than two years earlier than the cited application to Dugan. Even assuming that the filing date of the cited application was one year earlier, the patent application to Dugan is still not eligible as a prior art document for purposes of citation against any claims in the present application. Applicants' attorney posits the possibility of this later filing date of Dugan as being accurate because of the standard practice of publishing patent applications 18 months after filing. Using this standard, the publication date of Dugan is also consistent with a priority date of February 15, 2006. Applicants' position is also supported by the Examiner's own characterization of the date attached to this document as stated in the aforementioned rejection as being July 2006.

It is also to be observed that the filing date of the present invention lies within one year of the filing date of the cited patent application to Moore. Accordingly, it is noted that Applicants are therefore entitled to submit an affidavit under 37 CFR § 1.131. Such an affidavit is enclosed

herewith thus requiring the removal of the cited patent application to Moore as a basis for rejecting any of Applicants' claims.

Accordingly, it is seen that both of the rejections asserted by the Examiner are without foundation in law or regulation. Both of the patent application documents that the Examiner has employed are required to be removed from consideration as a basis for rejecting any of Applicants' claims. For these reasons, it is therefore asserted that the two rejections must be withdrawn. However, if for some reason unbeknownst to the present Applicants there exist errors in the priority dates attached to the two cited documents, it is still nonetheless noted that Applicants claims are still patentable over the cited art. The reasons for patentability, over the cited art, are presented below.

### **35 USC § 102 Rejection**

With respect to the rejection under 35 USC § 102, it is preliminarily noted that rejections under this statute constitute a narrow ground of rejection. The so-called anticipation rejection requires each and every recited claim element to be found within the four corners of a single document. Any of the minor exceptions to this rule are not germane to the present discussion. Attention is now focused on a discussion of the differences found between the patent application of Moore and the subject claim language.

Based upon the language cited below from the application of Moore, the Examiner asserts "DMAPI as initiating a data management application (DM) in said environment (e.g. DMAPI)." However, the cited language describes **a data migration interface, not a data management application!**

[0008] "... Furthermore, conventional hierarchal storage management uses an industry standard interface called **data migration** application programming **interface** (DMAPI)." [Emphasis added herein.]

An application is not an interface. And data migration is not data management. Since the Examiner's argument does not support his position that these two items are the same, and since it is in fact seen that they are different, it is clear that, on this basis alone the rejection under 35

USC § 102 cannot stand. Accordingly, it is very respectfully requested that this rejection be withdrawn.

The examiner has also pointed to paragraphs [0103-0105] and [0117-0118] in the application of Moore as a basis for Applicants' recitation of "posting a worker thread to one or more of the nodes to **perform data movement** in response to the event." However the cited application does not teach this. Instead, what one finds in paragraph [0103] is the following:

"[0103] ...An RPC [Remote Program Call] is a thread initiated on a node in response to a message from another node to act as a proxy for the requesting node. In the preferred embodiment, RPCs are used to acquire (or recall) tokens for the requesting node."

The language is clear in that the thread that is referred to is a Remote Program Call. It is not a thread that has anything to do with data movement, as is specifically recited in Applicants' claims. The language above from the cited application of more clearly describes the relevant thread as a mechanism used to acquire tokens. Again, the subject tread has nothing to do with data movement nor with responding to a request for data movement.

The Examiner's attention is also directed to the following language from paragraph [0105] from the cited application. It is clear that the step that is being described is a step in which objects associated with a file system are quiesced. In contrast, the language found in **Applicants' claims is one that calls for data movement not quiescence.**

"[0105]...The final result of the operations performed in step 270 is that all client objects associated with the filesystem are quiesced, so that no further RPCs will be sent or are awaiting receipt."

The Examiner has also pointed to paragraph [0117] in support of the proposition that the cited patent application also teaches "posting a worker thread to one or more of the nodes to perform data movement in response to the event." The only thing that this claim language has in common with the cited language from the patent application of Moore is the fact that they both refer to threads. The language below is clearly seen as describing threads that are waiting. Nothing is said about **posting a thread**, nothing is said which describes the thread as **a worker thread**, nor is anything said that would indicate that the thread is employed **to perform data movement** in response to an event in which the movement is requested.

[0117] ... (1) threads processing messages from failed nodes that are waiting for the token state to stabilize are sent an interrupt to be terminated to allow recovery to begin; (2) threads processing messages from failed nodes which may have initiated a token recall and are waiting for the tokens to come back are interrupted; (3) threads that are attempting to lend tokens which are waiting for the token state to stabilize and are blocking recovery/relocation are interrupted; and (4) threads that are waiting for the token state to stabilize in a filesystem that has been forced offline due to error are interrupted early.

Accordingly, it is seen that for these reasons, as well as for the ones stated above, it is clear that the language cited in the application of Moore does not even support a characterization of similarity between Applicants' claim language and the language found in the cited application. Significant differences exist.

For all the reasons asserted above, it is Applicants' position that the rejection of claims 1-4 and 9-20 under 35 USC § 102(e) based upon the published patent application of Moore et al., cannot be sustained. It is therefore respectfully requested that it be withdrawn.

### **35 USC § 103 Rejection**

Attention is now directed to the other rejection imposed by the Examiner. In particular, claims 5-8 also stand as being rejected under 35 USC § 103 based upon the aforementioned Moore application in further review of the published patent application of Dugan et al. Harkening back to the preliminary discussions above, it is noted that **the application of Dugan et al, is not even prior art**. Accordingly, the Examiner's rejection under 35 USC § 103 is clearly unsustainable based upon the inapplicability of the art cited.

The discussion above with respect to the patent application of Moore was essentially a narrow, technical discussion focused around specific differences between the cited application and the claimed invention. Focusing upon these technical details that are relevant when an anticipation rejection is imposed, misses the bigger picture. In particular, Moore limits DMAPI event processing for a given file system to his metadata node which gives him the same problem that led the current inventors to the technique described in their claimed inventions and application. The I/O requirements for handling DMAPI event processing is limited by the I/O capabilities of the session node or metadata node. In this regard, it is suggested that the Examiner consider the following language found in the present application.

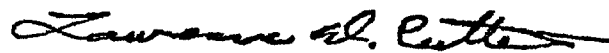
“[0011] Consequently, it would be desirable to utilize multiple nodes for data movement under coordination of a DMAPI application on a single session node to enhance performance without altering the operating system, the components of the computing environment or the DMAPI standard.”

This language sets forth one of the desirable aspects of the present invention, namely the utilization of multiple nodes to carry out a data movement process. However, it is the clear the unequivocal teachings of the application of Moore are to the contrary. In this regard, it is to be particularly noted that art which teaches against an applicant's claimed invention cannot be used in support of a rejection of that invention. For this reason as well, it is seen that the rejection of applicants claims 5-8 based upon the cited art cannot be sustained. Furthermore, since it is seen that the application of Moore teaches against the claimed invention, its combination with the application of Dugan et al. is inapposite. Accordingly, it is also requested that this rejection be withdrawn as well.

It is also noted that the present response does not require the payment of any fee. From the above, it is seen that the rejections of Applicants' claims 1-8 cannot be sustained. It is therefore respectfully requested that they be withdrawn.

Applicants' attorney wishes to point out to the Examiner that should the Examiner find it either necessary or desirable to discuss the present response with the claims, that he would be willing to discuss any matter which would assist the Examiner in furthering the prosecution of the present application with all due and proper regard for the appropriate scope of the invention. Accordingly, should the Examiner wish to discuss this case with Applicants' attorney, the Examiner may contact Applicants' attorney via any of the numbers listed below.

Respectfully submitted,



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Dated: November 26, 2007  
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants:	Robert J. Curran	Confirmation No.:	2326
Serial No.:	10/730,508	Group Art Unit:	2151
Filed:	December 8, 2003	Examiner:	Glenford J. Madamba
Title:	DATA MOVEMENT MANAGEMENT SYSTEM AND METHOD FOR A STORAGE AREA NETWORK FILE SYSTEM EMPLOYING THE DATA MANAGEMENT APPLICATION PROGRAMMING INTERFACE		

**Affidavit Submitted under 37 CFR § 1.131**

We the undersigned hereby state that we are the inventors of the invention claimed in the above-identified patent application and that this invention was reduced to practice prior to April 16, 2003. In support thereof, the following facts are attested to by the inventors herein:

1. Code was written and tested prior to the subject date that coding acting to carry out the steps recited in the claimed invention, namely: establishing a processing environment in a cluster of nodes having common access to data residing in one or more data storage units; initiating a data management application (DM) in said environment; assigning a node of said cluster as a coordinating node for managing data movement; receiving an event by the coordinating node requesting movement of data; posting a worker thread to one or more of the nodes to perform data movement in response to the event.

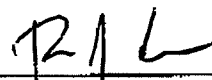
2. The test that was performed occurred in the ordinary course of the software development process and is called a unit test which is a functional test performed by the developer who wrote the code, in this case Irit Loy from IBM in Haifa, Israel. Unit test is a targeted test.

3. A unit test consists of checking the new function for basic correct operation in an environment isolated from the rest of the product functions.

4. The unit tests carried out by Irit Loy were deemed to have been passed and as a result thereof, the code was placed into an IBM code library.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, or any patent issuing thereon.

Signed: 20 NOVEMBER 2007

  
Robert J. Curran

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Radha R. Kandadai

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